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corrective action plan. A key component of this plan is the identification and provision of fire protection program resources. This includes Fire Department resources needed to meet the test, maintenance, and inspection requirements for fixed fire systems and Fire Protection Engineering resources needed to perform required assessment and analyses. The framework of this corrective action plan was transmitted to the Y-12 Area Office of NNSA in January 2001. In addition, a project task team is being established to prepare an overall comprehensive project plan to address all of the fire protection issues.

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Section D.7.4.4 describes the severe accident analysis (bounding case scenario) that has been conducted to evaluate the effect of an earthquake on Y-12 facilities. This analysis is very conservative in that seismic events of magnitudes greater than defined in DOE requirements were selected, and three distinct event criterion–the earthquake, pre-existing abnormal facility/equipment condition or an abnormal facility/equipment response–were included. The probability of fires and explosions was also included in the analysis. The high consequence seismic event analysis includes the complete structural collapse of buildings. The SWEIS includes the risk to the public and workers resulting from a seismic event (see Appendix D, Table D.7.4.4-4).

There are a number of important differences between the New Madrid Seismic Zone and the Southern Appalachian Seismic Zone of which the East Tennessee Seismic Zone is a part. The most notable difference between the two zones is the lack of any known earthquakes with magnitudes of 6.0 or greater in the Southern Appalachian Seismic Zone. Only one or two earthquakes with magnitudes equal to or greater than 3.0 would be expected in the Southern Appalachian Seismic Zone per year. The extrapolated, expected recurrence time for earthquakes with magnitudes of 6.0 or greater in the Southern Appalachian Seismic Zone is 186 years (Bollinger et al., 1989 as cited in Munsey, nda)[a]. In comparison, the New Madrid Seismic Zone produces about 6 earthquakes of magnitude 3.0 or larger per year. An earthquake of magnitude 6.0 or